

N61165.AR.005734
CNC CHARLESTON
5090.3a

LEAD BASED PAINT CLEARANCE SAMPLING QUARTERS 760, 761, 762, AND 763 CNC
CHARLESTON SC
02/26/2001
GENERAL ENGINEERING LABORATORIES

**Lead-Based Paint
Clearance Sampling**

Quarters 760, 761, 762 and 763

**Charleston Naval Complex
Charleston, South Carolina**

Submitted to:

CH2M-Jones, LLC
1849 Avenue F
Charleston Naval Complex
Charleston, South Carolina

Submitted by:

General Engineering
A Division of General Engineering Laboratories, Inc.
Post Office Box 30712
Charleston, South Carolina 29407

Submittal Date: February 26, 2001



GENERAL ENGINEERING

A Division of General Engineering Laboratories, Inc.

February 26, 2001

Mr. Jed Heames, Site Superintendent
CH2M-Jones, LLC
1849 Avenue F
Charleston Naval Complex
Charleston, South Carolina 29405-6188

Re: Lead-Based Paint Clearance Samples
Quarters A and Quarters F, Charleston Naval Complex (CNC)
Charleston, South Carolina

Dear Mr. Heames:

During the period from December 1, 2000 – January 26, 2001, certified lead inspectors and risk assessors from General Engineering performed lead-based paint (LBP) initial clearance testing on Quarters A and Quarters F located in the Charleston Naval Complex, North Charleston, South Carolina. While in Quarters F, no additional cleaning was required, results from the initial clearance testing in Quarters A required additional cleaning and subsequent re-testing until LBP dust hazards were reduced below dust clearance levels from each unit.

Mr. Craig Langford and James R. Tucker, Ph.D. collected dust wipe samples from floors, window sills (stools) and window troughs. These samples were collected in accordance with the Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint in Housing, October 1997 and subsequent regulatory revisions published in the Code of Federal Regulations (CFR), 29CFR Part 35 et al., effective September 15, 2000. The lead dust content of the wipes from each tested surface was analyzed by Environmental Hazard Services, LLC, an Environmental Lead Proficiency Analytical Testing (ELPAT) certified laboratory.

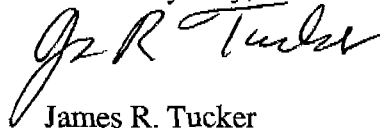
HUD and the United States Environmental Protection Agency (EPA) regulations specify clearance test levels for lead dust when the lead content is equal to or greater than 40 micrograms per square foot (ug/ft^2) for floors, 250 ug/ft^2 for window sills (stools) and 800 ug/ft^2 for window troughs (wells). A representative number of dust wipe test locations were collected based upon recommendations from Chapter 15 of the HUD Guidelines and professional judgement. Quality control samples and field blanks were prepared and submitted as part of sample submissions. Results from these QC samples compared favorably with predicted results. The locations of the dust wipe testing locations are shown on the attached drawings for each building. Compliant clearance dust wipe samples for each building are listed in Table One and locations shown on drawings in Attachment One. The complete dust wipe and soil analytical results are summarized in Table Two, on attached laboratory analytical forms and shown on drawings on Attachment Two. The inspectors and firm certifications are also included.



Mr. Jed Heames
February 26, 2001
Page 2

On behalf of General Engineering, I want to thank for the opportunity to assist you in meeting your environmental needs. If you have any questions or need additional information, please call me at (843) 769-7378, extension 4483.

Yours very truly,



James R. Tucker
Certified LBP Risk Assessor
#SC-02-0320031667

fc: chmj00100c:022601a
enclosure

GENERAL ENGINEERING
PO Box 30712 • Charleston, SC 29417 • 2040 Savage Road • 29407
(843) 769-7378 • Fax (843) 769-7397



Printed on recycled paper.

TABLE ONE

COMPLIANT

LEAD DUST WIPE AND SOIL RESULTS

CHARLESTON NAVAL COMPLEX

NORTH CHARLESTON, SOUTH CAROLINA

Location #	Building	Sample Identification	Sample Type*	Lead Concentration **
35	Quarters 760	F-1-760	F	<20
36	Quarters 760	WT-1-760	T	88
37	Quarters 760	F-2-760	F	<20
38	Quarters 760	WC-2-760	S	<22
39	Quarters 760	F-3-760	F	<20
40	Quarters 760	WT-3-760	T	35
41	Quarters 760	F-4-760	F	<20
42	Quarters 760	WC-4-760	S	34
43	Quarters 760	OS-1-760	C	1,100
24	Quarters 761	F-1-761	F	<20
25	Quarters 761	WT-1-761	T	110
26	Quarters 761	F-2-761	F	<20
27	Quarters 761	WC-2-761	S	<22
28	Quarters 761	F-3-761	F	<20
29	Quarters 761	WC-3-761	S	<25
30	Quarters 761	F-4-761	F	<20
31	Quarters 761	WT-4-761	T	430
32	Quarters 761	OS-1-761	C	1,500
69	Quarters 762	JRT-1229-9	F	128
70	Quarters 762	JRT-1229-10	B	<20
71	Quarters 762	JRT-1229-11	F	36

*F-Floor Clearance Level = 40 ug/ft², S-Sill Clearance Level = 250 ug/ft²

T-Trough = 800 ug/ft², C-Composite Soil Level, B-Blank or Q-Quality Assurance

** Dust Wipes - ug/ft², Composite Soil - parts per million (ppm)

TABLE ONE (Continued)

**COMPLIANT
LEAD DUST WIPE AND SOIL RESULTS
CHARLESTON NAVAL COMPLEX
NORTH CHARLESTON, SOUTH CAROLINA**

Location #	Building	Sample Identification	Sample Type*	Lead Concentration **
72	Quarters 762	JRT-1229-12	T	630
74	Quarters 762	JRT-1229-14	T	232
75	Quarters 762	JRT-1229-15	F	<20
76	Quarters 762	JRT-1229-16	T	151
78	Quarters 762	JRT-1229-18	C	190
93	Quarters 762	JRT-0110-11	F	<20
62	Quarters 763	JRT-1229-2	F	<20
63	Quarters 763	JRT-1229-3	F	34
64	Quarters 763	JRT-1229-4	T	234
65	Quarters 763	JRT-1229-5	T	146
66	Quarters 763	JRT-1229-6	F	<20
67	Quarters 763	JRT-1229-7	S	<20
77	Quarters 763	JRT-1229-17	C	1,700
102	Quarters 763	JRT-0126-4	F	<20

***F-Floor Clearance Level = 40 ug/ft², S-Sill Clearance Level = 250 ug/ft²**

T-Trough = 800 ug/ft², C-Composite Soil Level, B-Blank or Q-Quality Assurance

**** Dust Wipes - ug/ft², Composite Soil – parts per million (ppm)**

TABLE TWO
COMPLETE LEAD DUST WIPE AND SOIL RESULTS
CHARLESTON NAVAL COMPLEX
NORTH CHARLESTON, SOUTH CAROLINA

Location #	Building	Sample Identification	Sample Type*	Lead Concentration **
1	Quarters 761	JRT-1201-1	F	110
2	Quarters 761	JRT-1201-2	T	3,000
3	Quarters 761	JRT-1201-3	F	310
4	Quarters 761	JRT-1201-4	F	9,300
5	Quarters 761	JRT-1201-5	T	28,000
6	Quarters 761	JRT-1201-6	F	620
7	Quarters 761	JRT-1201-7	S	680
8	Quarters 761	JRT-1201-8	F	140
9	Quarters 761	JRT-1201-9	S	280
10	Quarters 761	JRT-1201-10	B	<20
11	Quarters 761	JRT-1201-11	Q	550
12	Quarters 761	JRT-1201-12	Q	610
24	Quarters 761	F-1-761	F	<20
25	Quarters 761	WT-1-761	T	110
26	Quarters 761	F-2-761	F	<20
27	Quarters 761	WC-2-761	S	<22
28	Quarters 761	F-3-761	F	<20
29	Quarters 761	WC-3-761	S	<25
30	Quarters 761	F-4-761	F	<20
31	Quarters 761	WT-4-761	T	430
32	Quarters 761	OS-1-761	C	1,500
33	Quarters 761	QS-3	Q	150

*F-Floor Clearance Level = 40 ug/ft², S-Sill Clearance Level = 250 ug/ft²

T-Trough = 800 ug/ft², C-Composite Soil Level, B-Blank or Q-Quality Assurance

** Dust Wipes - ug/ft², Composite Soil – parts per million (ppm)

TABLE TWO (Continued)

**COMPLETE LEAD DUST WIPE AND SOIL RESULTS
CHARLESTON NAVAL COMPLEX
NORTH CHARLESTON, SOUTH CAROLINA**

Location #	Building	Sample Identification	Sample Type*	Lead Concentration **
34	Quarters 761	QS-4	Q	150
35	Quarters 760	F-1-760	F	<20
36	Quarters 760	WT-1-760	T	88
37	Quarters 760	F-2-760	F	<20
38	Quarters 760	WC-2-760	S	<22
39	Quarters 760	F-3-760	F	<20
40	Quarters 760	WT-3-760	T	35
41	Quarters 760	F-4-760	F	<20
42	Quarters 760	WC-4-760	S	34
43	Quarters 760	OS-1-760	C	1,100
44	Quarters 760	QS-5	Q	150
45	Quarters 760	QS-6	Q	130
46	Quarters 763	JRT-1222-1	S	630
61	Quarters 763	JRT-1229-1	S	239
62	Quarters 763	JRT-1229-2	F	<20
62	Quarters 763	JRT-1229-3	F	34
64	Quarters 763	JRT-1229-4	T	234
65	Quarters 763	JRT-1229-5	T	146
66	Quarters 763	JRT-1229-6	F	<20
67	Quarters 763	JRT-1229-7	S	<20
68	Quarters 763	JRT-1229-8	F	143
69	Quarters 762	JRT-1229-9	F	128
70	Quarters 762	JRT-1229-10	B	<20

*F-Floor Clearance Level = 40 ug/ft², S-Sill Clearance Level = 250 ug/ft²

T-Trough = 800 ug/ft², C-Composite Soil Level, B-Blank or Q-Quality Assurance

** Dust Wipes - ug/ft², Composite Soil - parts per million (ppm)

TABLE TWO (Continued)

**COMPLETE LEAD DUST WIPE AND SOIL RESULTS
CHARLESTON NAVAL COMPLEX
NORTH CHARLESTON, SOUTH CAROLINA**

Location #	Building	Sample Identification	Sample Type*	Lead Concentration **
71	Quarters 762	JRT-1229-11	F	36
72	Quarters 762	JRT-1229-12	T	630
73	Quarters 762	JRT-1229-13	F	66
74	Quarters 762	JRT-1229-14	T	232
75	Quarters 762	JRT-1229-15	F	<20
76	Quarters 762	JRT-1229-16	T	151
77	Quarters 763	JRT-1229-17	C	1,700
78	Quarters 762	JRT-1229-18	C	190
79	Quarters 762	JRT-1229-19	Q	37
80	Quarters 763	JRT-1229-20	Q	37
81	Quarters 762	JRT-1229-21	B	<20
82	Quarters 763	JRT-1229-22	B	<20
92	Quarters 763	JRT-0110-10	F	61
93	Quarters 762	JRT-0110-11	F	<20
102	Quarters 763	JRT-0126-4	F	<20
103	Quarters 763	JRT-0126-5	B	<20

***F-Floor Clearance Level = 40 ug/ft², S-Sill Clearance Level = 250 ug/ft²**

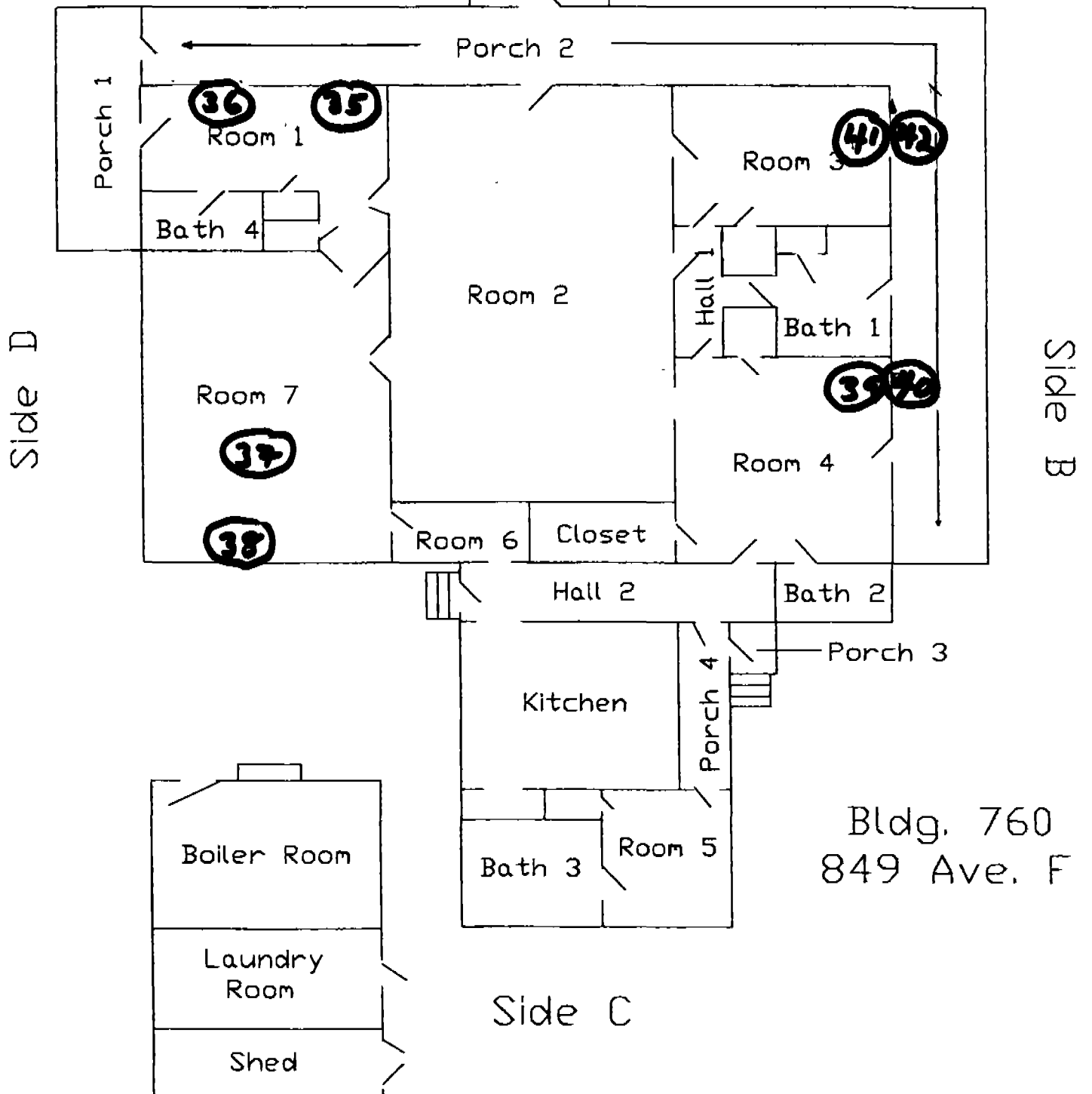
T-Trough = 800 ug/ft², C-Composite Soil Level, B-Blank or Q-Quality Assurance

**** Dust Wipes - ug/ft², Composite Soil – parts per million (ppm)**

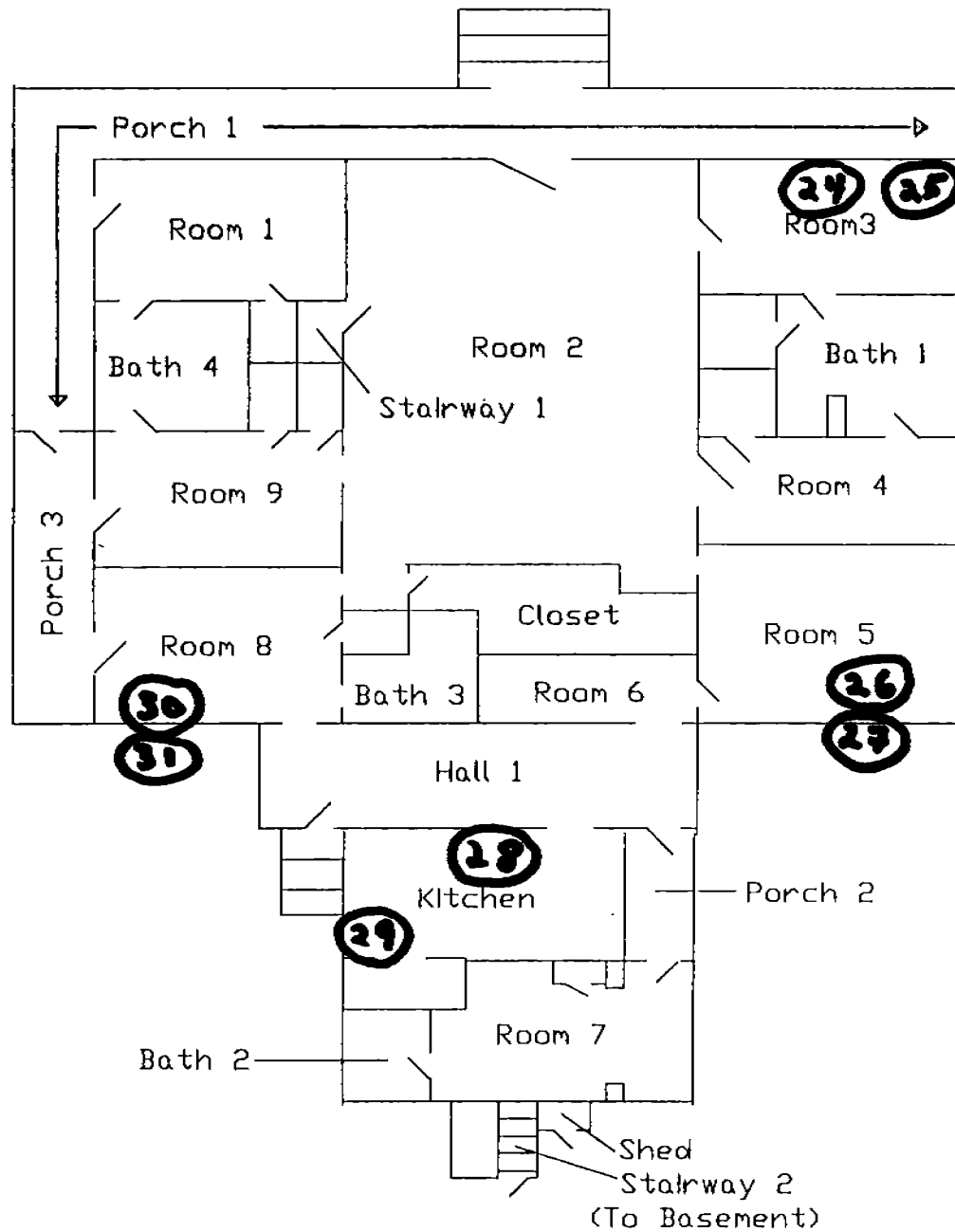
Attachment One

**COMPLIANT LEAD DUST WIPE AND SOIL RESULTS
QUARTERS 760, 761, 762 AND 763
CHARLESTON NAVAL COMPLEX
NORTH CHARLESTON, SOUTH CAROLINA**

Side A

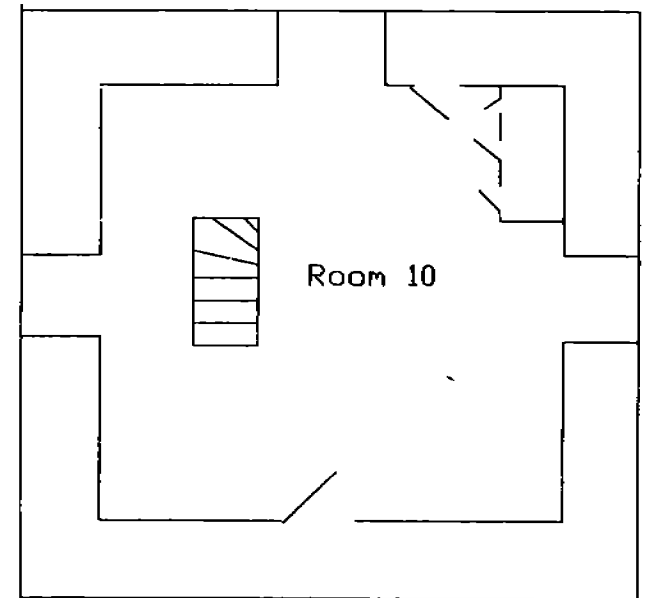


Side D



Side A

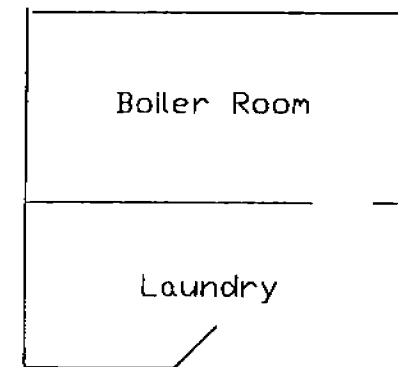
Qtrs. 761
895 Ave "F"



Side B

2nd Floor

Side C

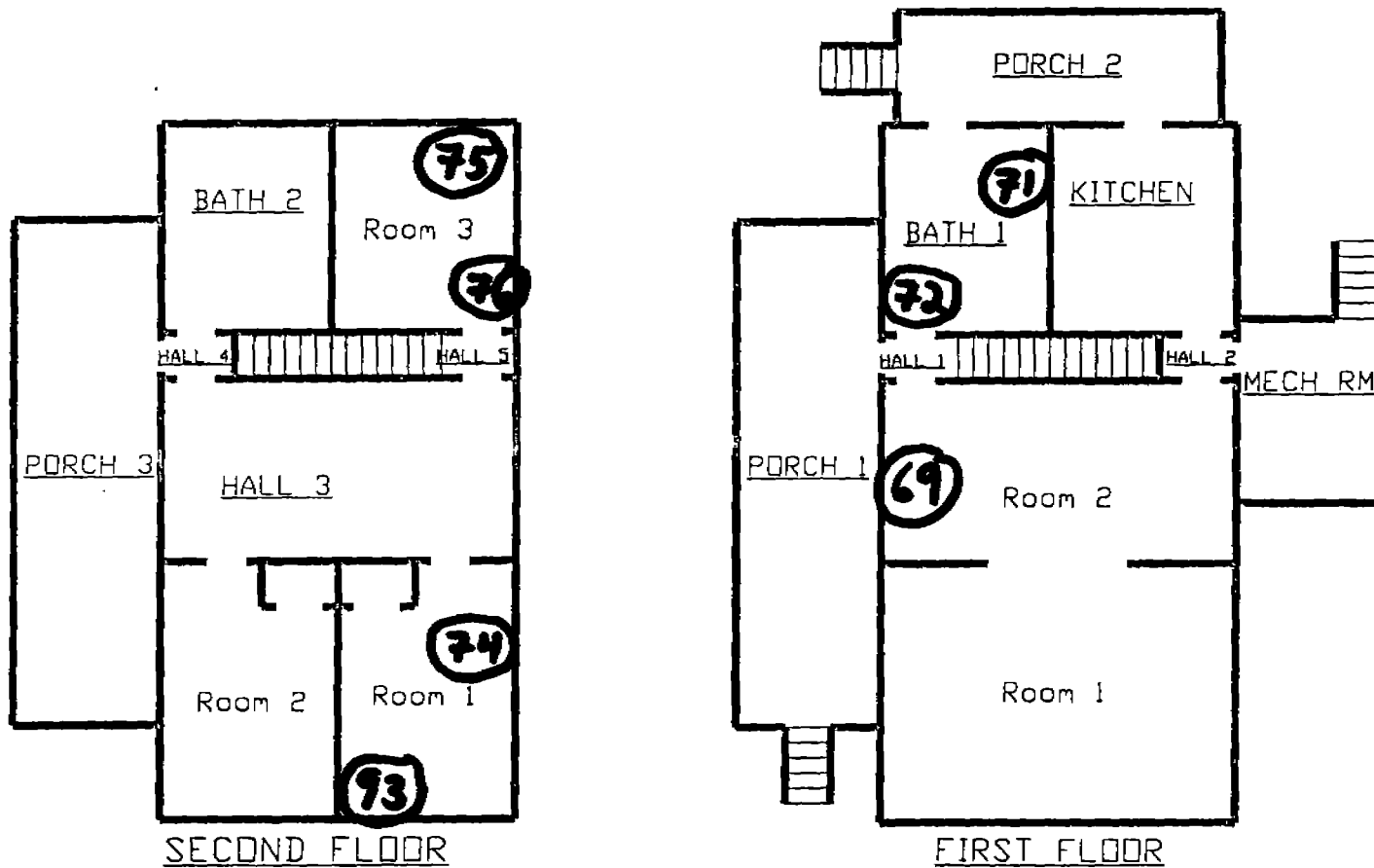


Basement Area

Side C

Side D

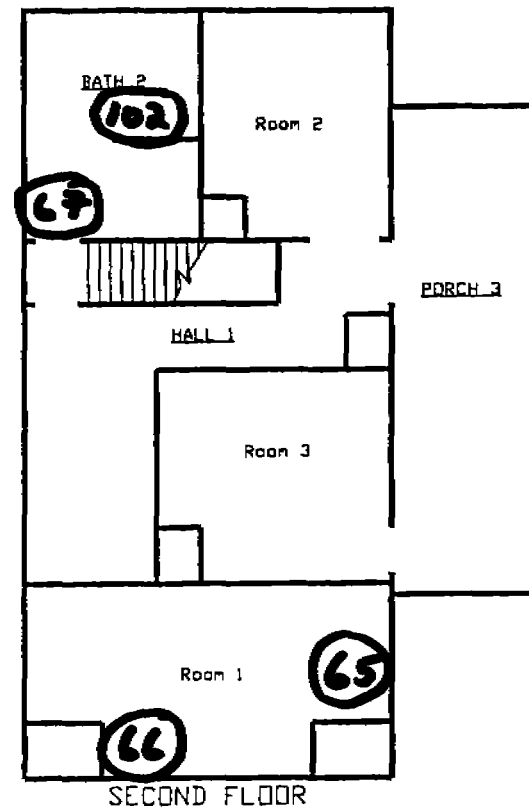
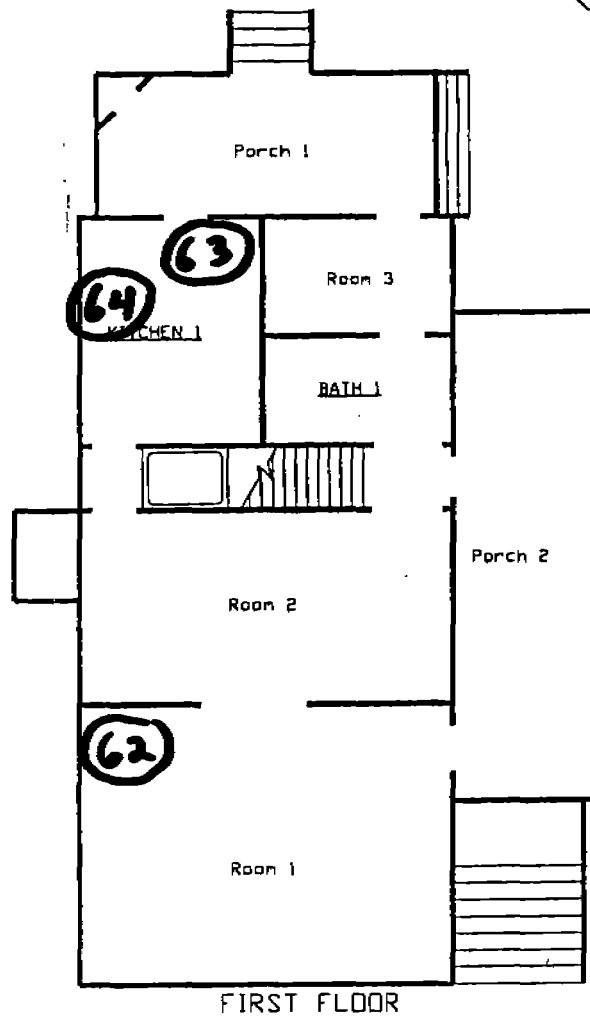
Side A



SPORTENVDETHASN 1899 North Hobson Ave. North Charleston, SC 29405-2108 Ph. (803) 743-6777	Floor Plan Quarters 762, 1463 Avenue "H" Charleston Naval Base Charleston, SC	
	DWG DATE: 8 May 1998	DWG NAME: ASB 1463

Figure 35-a, Quarters 762, Floorplan

Side C



Side D

Side A

SPORTENVDETHASN
1889 North Hobson Ave.
North Charleston, SC
29405-2106
Ph. (803) 743-6777

Floor Plan (Type II)
Quarters 763, 1451 Avenue "H"
Charleston Naval Base
Charleston, SC

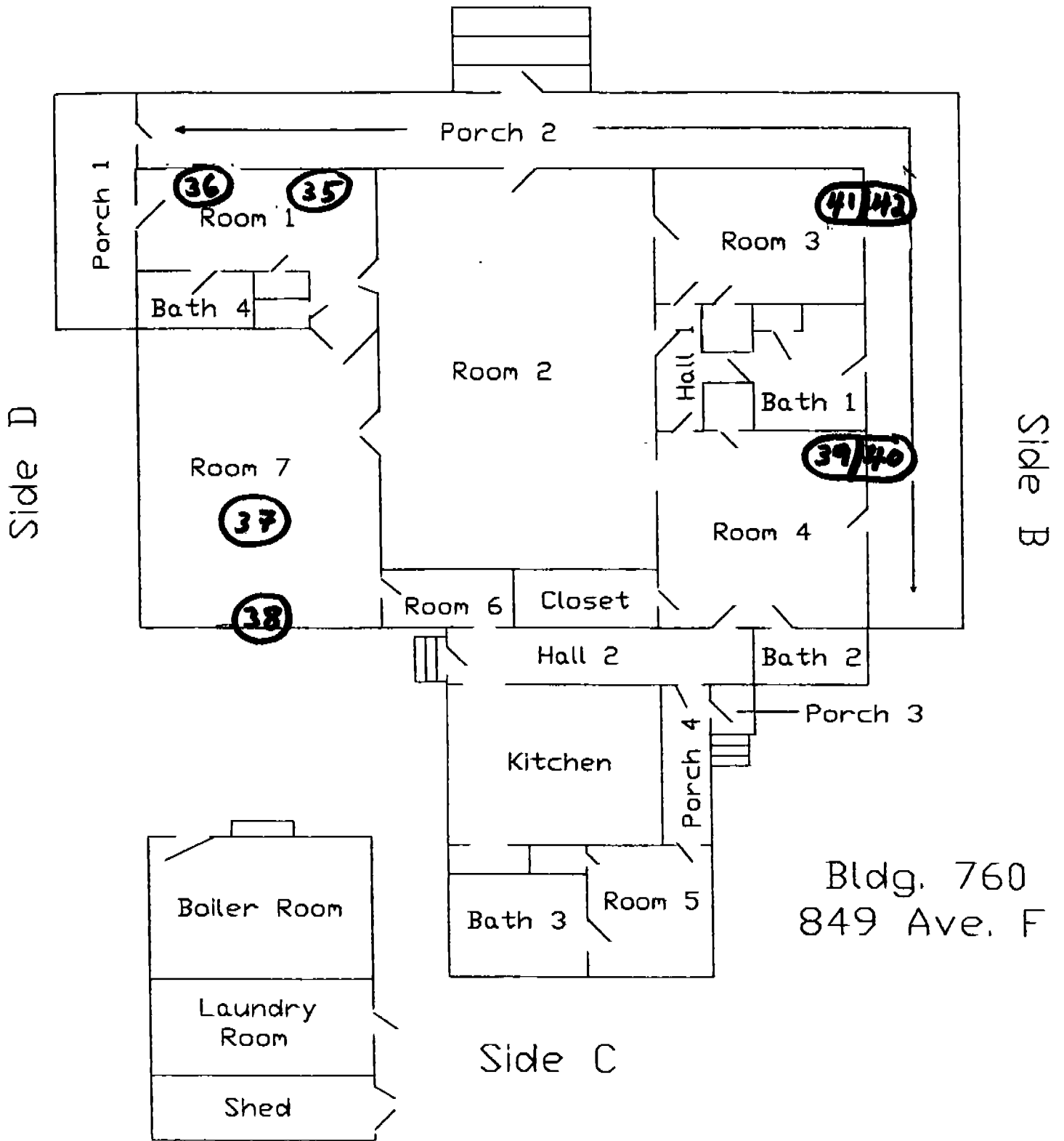
DWG DATE: 17 OCT 97 DWG NAME: ABS 1451

Figure 36-a, Quarters 763, Floorplan

Attachment Two

**COMPLETE LEAD DUST WIPE AND SOIL RESULTS
FLOOR PLANS
QUARTERS 760, 761, 762 AND 763
CHARLESTON NAVAL COMPLEX
NORTH CHARLESTON, SOUTH CAROLINA**

Side A



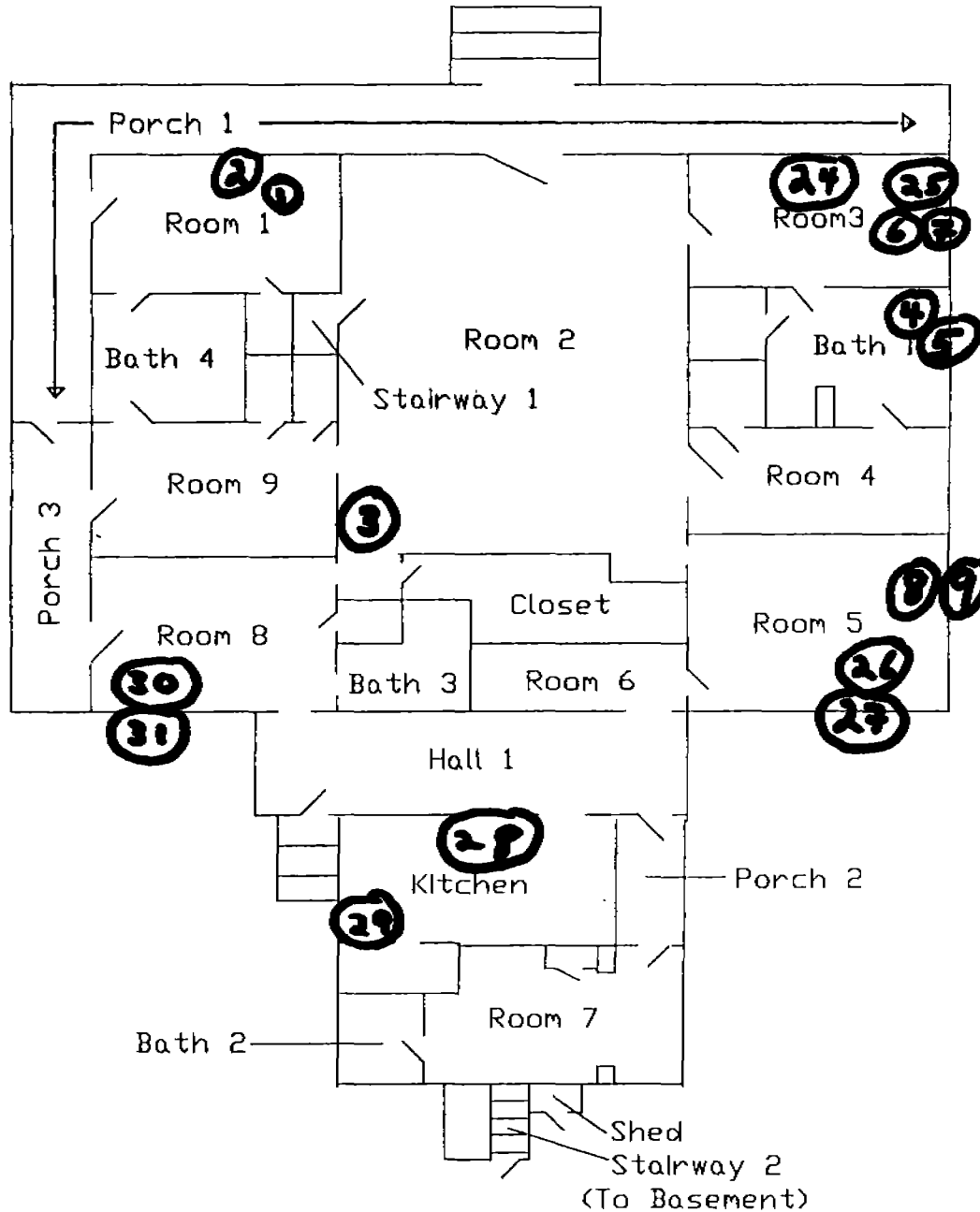
Bldg. 760
849 Ave. F

Garage

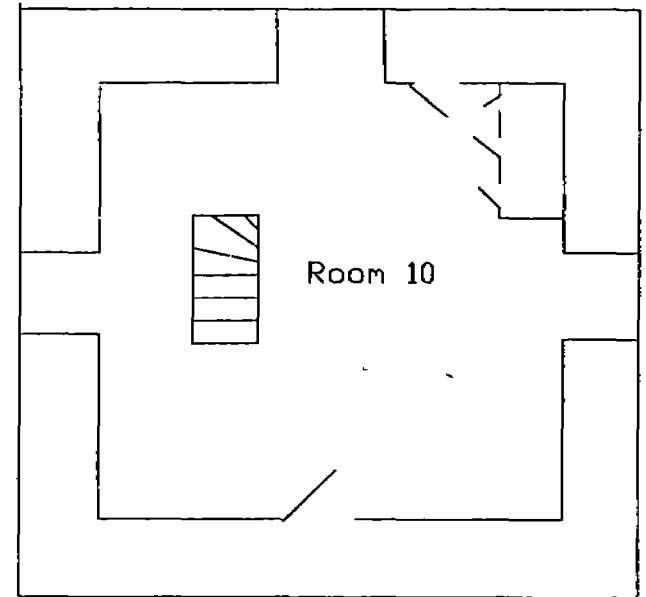
Slide A

Qtrs. 761
895 Ave "F"

Side D

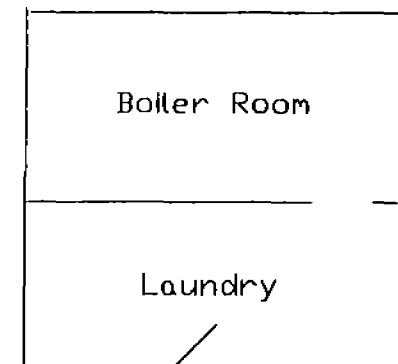


Side B



2nd Floor

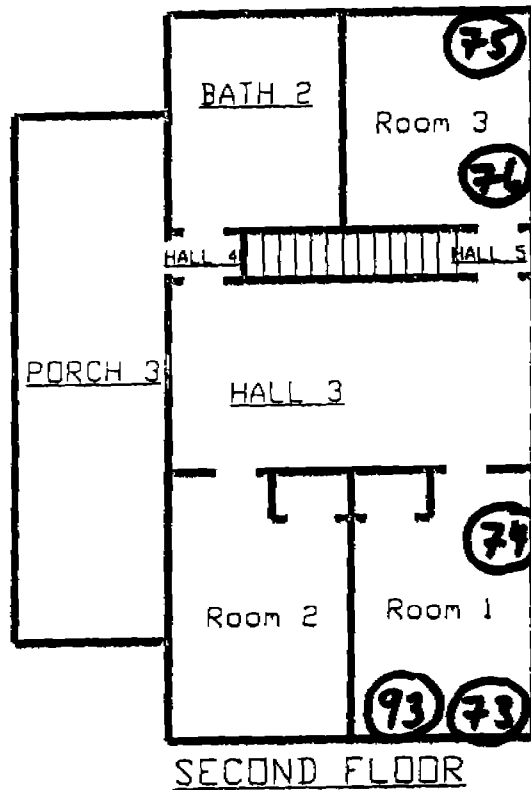
Slide C



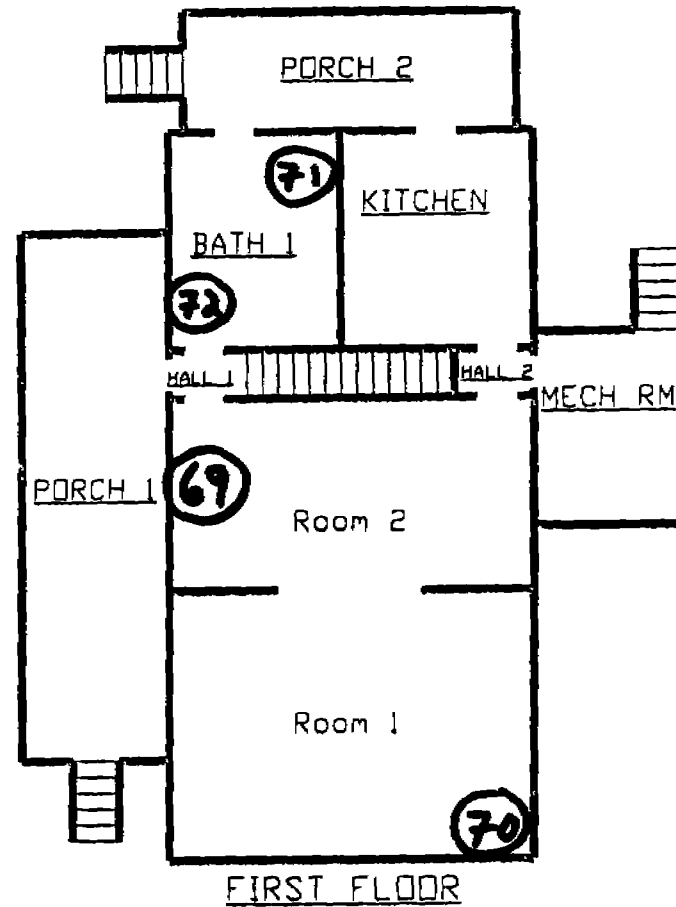
Basement Area

Side C

Side B



Side A



Side D

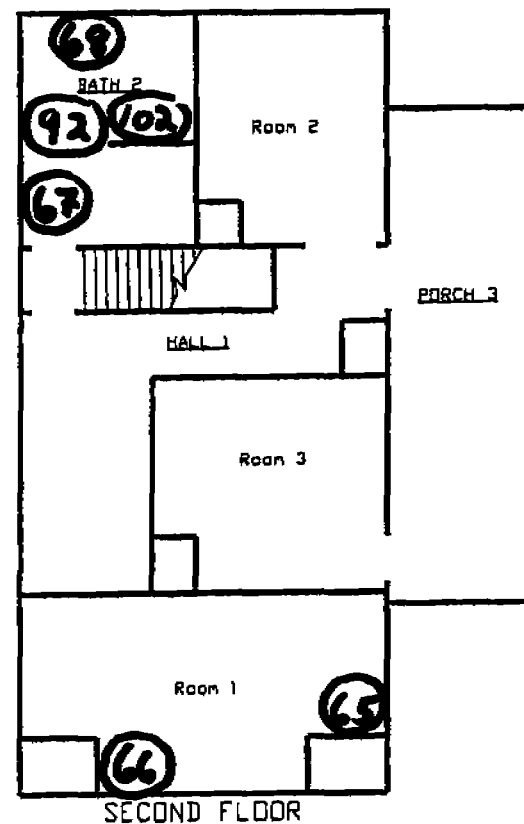
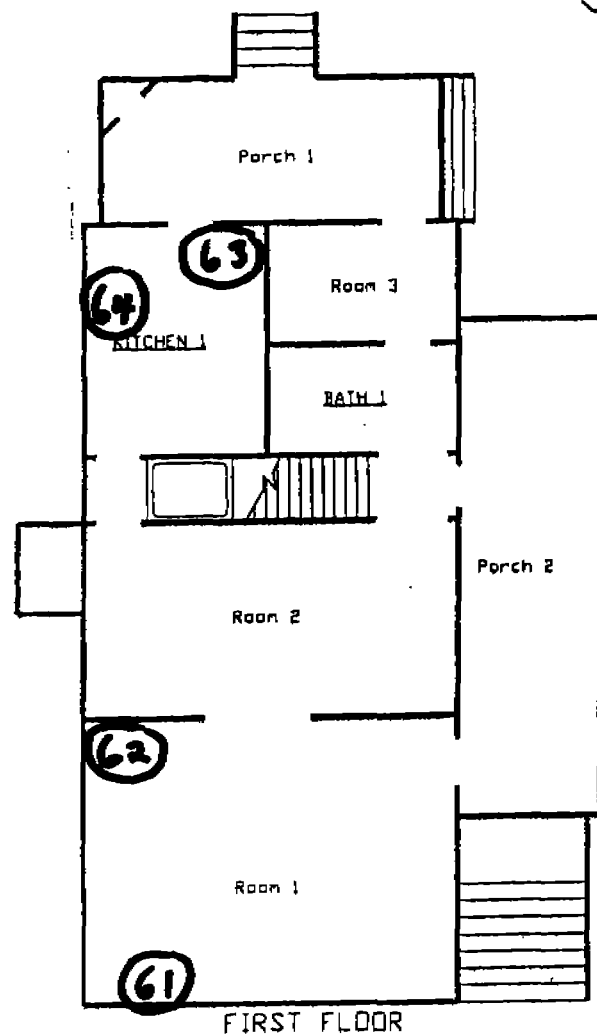
Figure 35-a, Quarters 762, Floorplan

804

SPORTENVDETHASN
1899 North Hobson Ave.
North Charleston, SC
29405-2108
Ph. (803) 743-8777

Floor Plan
Quarters 762, 1463 Avenue "H"
Charleston Naval Base
Charleston, SC

DWG DATE: 8 May 1998 DWG NAME: ASB 1463



Attachment Three

**CHAIN OF CUSTODY FORMS
AND
LABORATORY ANALYSIS**

12 Pb Wipe

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.
7469 Whitepine Road Richmond, Virginia 23237 Phone (804) 275-4788 Fax (804) 275-4907
CHAIN OF CUSTODY FORM

EHS 12-00-0232

Company Name: General Engineering

Address: PO Box 30712

City, State, Zip: Charleston, SC 29417

EHS Client Account #:

Phone#: 843-769-7378 X-4483

Fax#: 843-769-7397

Date: 12-01-00

Contact Name: James R. Tucker

Sampler Name: James R. Tucker

Project #: CHM T00100C

P.O. #:

SAMPLE CONDITION
Acceptable ☒
Unacceptable ☐

Sample Number	Sample Date & Time	Asbestos					Lead					Other Metals (Specify metals below)					Comments
		Bulk ID by PLM	Asbestos Wipe	Fiber Count (PCM)	TEM Air	TEM Chatfield (Bulk)	Air	Paint	Soil	Wipe	TCLP (Pb)	Waste Water	TCLP RCRA 8				
1 JRT-1201-1	1:00																Air Volume (L) OR Area (ft ²) OR Scrape Area (cm²)
2 JRT-1201-2	1:10								✓								0.968
3 JRT-1201-3	1:20								✓								0.968
4 JRT-1201-4	1:30								✓								0.968
5 JRT-1201-5	1:40								✓								0.968
6 JRT-1201-6	1:50								✓								0.807
7 JRT-1201-7	2:00								✓								0.807
8 JRT-1201-8	2:15								✓								0.807
9 JRT-1201-9	2:30								✓								0.807
10 JRT-1201-10	3:00								✓								0.807
Released by: J. R. Tucker		Signature: J. R. Tucker										Date/Time: 12-01-00 - 4:30					
Received by: APF1009		Signature: [Signature]										Date/Time: 12/1/00 8:30					
Released by:		Signature:										Date/Time:					
Received by:		Signature:										Date/Time:					

Sent by: ENVIRONMENTAL HAZARD SERVICES 8042754907; 12/06/00 9:38; ~~jetfax~~ #324; Page 4/4

Sent by: ENVIRONMENTAL HAZARD SERVICES 8042754907; 12/06/00 9:38; ~~jetfax~~ #324; Page 4/4

Sent by: ENVIRONMENTAL HAZARD SERVICES 8042754907; 12/06/00 9:38; ~~jetfax~~ #324; Page 4/4

FAXED DEC 05 2000

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237

804-275-4788 FAX 804-275-4907

WIPE LEAD ANALYSIS SUMMARY

CLIENT: General Engineering
2040 Savage Road
Charleston, SC 29417

DATE OF SAMPLING: 01 DEC 2000
DATE OF RECEIPT: 04 DEC 200
DATE OF ANALYSIS: 04 DEC 2000
DATE OF REPORT: 05 DEC 2000

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 12-00-0232
PROJECT: CHMJ00100C

EHS SAMPLE#	CLIENT SAMPLE#	WIPE AREA (ft2)	TOTAL LEAD (ug)	CONCENTRATION (ug/ft2)
01	JRT-1201-1	1	106	110
02	JRT-1201-2	0.968	2950	3000
03	JRT-1201-3	1	310	310
04	JRT-1201-4	1	9320	9300
05	JRT-1201-5	0.968	27200	28000
06	JRT-1201-6	1	624	620
07	JRT-1201-7	0.807	545	680
08	JRT-1201-8	1	143	140
09	JRT-1201-9	0.807	225	280
10	JRT-1201-10	1	<20.0	<20
11	JRT-1201-11	1	550	550
12	JRT-1201-12	1	607	610

QUALITY CONTROL DATA

BATCH#:	120400W-3
INCLUSIVE EHS SAMPLE NUMBERS:	01-12
Continuing Calibration Verification 10 (10.0ppm Pb)	100% Recovery
Continuing Calibration Verification 5 (5.00ppm Pb)	102% Recovery
Laboratory Control Standard	96.9% Recovery
Matrix Spike	106% Recovery
Duplicate Relative Percent Difference	8.97 RPD
Reporting Limit	20.0ug
Method Detection Limit	8.80ug


ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 12-00-0232
PROJECT: CHMJ00100C

METHOD: NIOSH 7082M

ANALYST: Aubrey Simonds

Reviewed By Authorized Signatory:


Howard Verner, Laboratory Director
Irma Faszewski, Quality Assurance Coordinator
David Xu, MS, Senior Chemist
Feng Jiang, MS, Senior Geologist

Sample results denoted with a "less than" (<) sign contain less than 20.0ug total lead, based on a 100ml sample volume.

Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by the client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C.
California Certification #2319

LEGEND	ug = microgram	ppm = parts per million	ug/ft2 = micrograms per square foot
	ml = milliliter	Pb = lead	ft2 = square foot

wipepb1.dot/24OCT2000/LLH

-- PAGE 02 of 02 -- END OF REPORT --

P. 010

CHAIN OF CUSTODY FORM

8 Pb(wipe)

Date: 12-13-00
Contact Name: Craig Langford
Sampler Name: C. Langford
Project #: CHMT00100C
P.O. #:

		Asbestos					Lead					Other Metals (Specify metals below)						
Sample Number	Sample Date & Time	Bulk ID by PLM	Asbestos Wipe	Fiber Count (PCM)	TEM Air	TEM Chaffed (Bulk)	Air	Paint	Soil	Wipe	TCLP (Pb)	Waste Water	TCLP RCRA 8				Air Volume (L) OR Wipe Area (ft²) OR Scrape Area(cm²)	Comments
1-761	11:15									✓							1	* 24-hr
1-1-761	11:20									✓							1.181	turn around
2-761	11:25									✓							1	
2-2-761	11:30									✓							0.944	
3-761	11:35									✓							1	SAMPLE CONDITION
-3-761	11:40									✓							0.833	Acceptable
4-761	11:45									✓							1	Unacceptable
-4-761	11:50									✓							0.889	
5-1-761	11:55								✓	✓							1	Soil Composite
5-3									✓								1	
Analyzed by: Jennifer E. O'Neal							Signature: Jennifer O'Neal							Date/Time: 12-13-00 2:00				
Received by:							Signature:							Date/Time:				
Analyzed by:							Signature:							Date/Time:				
Received by:							Signature: J. Singleton							Date/Time: 12/14/00 10:20				

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7489 WHITE PINE ROAD - RICHMOND, VA 23237

804-275-4788 FAX 804-275-4907

WIPE LEAD ANALYSIS SUMMARY

CLIENT: General Engineering
2040 Savage Road
Charleston, SC 29417

DATE OF SAMPLING: 13 DEC 2000
DATE OF RECEIPT: 14 DEC 2000
DATE OF ANALYSIS: 14 DEC 2000
DATE OF REPORT: 14 DEC 2000

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 12-00-1505
PROJECT: CHMJ 00100C

EHS SAMPLE#	CLIENT SAMPLE#	WIPE AREA (ft ²)	TOTAL LEAD (ug)	CONCENTRATION (ug/ft ²)
01	F-1-761	1	<20.0	<20
02	WT-1-761	1.181	125	110
03	F-2-761	1	<20.0	<20
04	WC-2-761	0.944	<20.0	<22
05	F-3-761	1	<20.0	<20
06	WC-3-761	0.833	<20.0	<25
07	F-4-761	1	<20.0	<20
08	WT-4-761	0.889	386	430

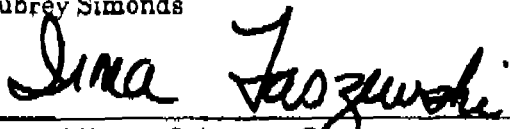
QUALITY CONTROL DATA

BATCH#:	121400W-6
INCLUSIVE EHS SAMPLE NUMBERS:	01-08
Continuing Calibration Verification 10 (10.0ppm Pb)	104% Recovery
Continuing Calibration Verification 5 (5.00ppm Pb)	109% Recovery
Laboratory Control Standard	101% Recovery
Matrix Spike	106% Recovery
Duplicate Relative Percent Difference	4.83 RPD
Reporting Limit	20.0ug
Method Detection Limit	8.80ug

METHOD: NIOSH 7082M

ANALYST: Aubrey Simonds

Reviewed By Authorized Signatory:


Howard Varner, Laboratory Director
Irma Faszewski, Quality Assurance Coordinator
David Xu, MS, Senior Chemist
Feng Jiang, MS, Senior Geologist

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 42-4586 A

EHS PROJECT #: 12-00-1505

PROJECT: CHMJ 00100C

Sample results denoted with a "less than" (<) sign contain less than 20.0ug total lead, based on a 100ml sample volume.

Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by the client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C.
California Certification #2319

LEGEND

ug = microgram

ppm = parts per million

ug/ft2 = micrograms per square foot

ml = milliliter

Pb = lead

ft2 = square foot

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ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237

804-275-4788 FAX 804-275-4907

LEAD IN SOIL ANALYSIS SUMMARY

CLIENT: General Engineering
2040 Savage Road
Charleston, SC 29417

DATE OF SAMPLING: 13 DEC 2000
DATE OF RECEIPT: 14 DEC 2000
DATE OF ANALYSIS: 15 DEC 2000
DATE OF REPORT: 15 DEC 2000

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 12-00-1504
PROJECT: CHMJ00100C

EHS SAMPLE#	CLIENT SAMPLE#	CONCENTRATION PPM (mg/kg)
01	OS-1-761	1500
02	QS-8	150
03	QS-4	150

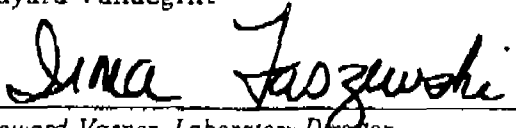
QUALITY CONTROL DATA

BATCH#:	121500S1-1
INCLUSIVE EHS SAMPLE NUMBERS:	01-03
Initial Calibration Verification (5.00ppm Pb)	102% Recovery
Continuing Calibration Verification 10 (10.0ppm Pb)	104% Recovery
Continuing Calibration Verification 5 (5.00ppm Pb)	94.8% Recovery
Laboratory Control Standard	103% Recovery
Matrix Spike	78.5% Recovery
Duplicate Relative Percent Difference	0.112 RPD
Reporting Limit	25.0ug
Method Detection Limit	2.50ug

PREPARATION METHOD: EPA 600/R-93/200
ANALYSIS METHOD: EPA SW846 7420

ANALYST: Bayard Vandegrift

Reviewed By Authorized Signatory:


Howard Varner, Laboratory Director
Irma Faszewski, Quality Assurance Coordinator
David Xu, MS, Senior Chemist
Feng Jiang, MS, Senior Geologist

Sample results denoted with a "less than" (<) sign contain less than 25.0ug total lead, based on a 50ml sample volume

Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by the client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319

LEGEND ug = microgram ppm = parts per million mg/kg = milligrams per kilogram

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 Whitepine Road Richmond, Virginia 23237 Phone (804) 275-4788 Fax (804) 275-4907

EHS 12-00-1508

CHAIN OF CUSTODY FORM

8 Pb (wipe)

Company Name: General Engineering
Address: 2040 Savage Road
City, State, Zip: Charleston South Carolina 29407
S Client Account #:
Phone: 843-769-7378 Fax#: 843-769-7397

Date: 12-13-00
Contact Name: Craig Langford
Sampler Name: C. Langford
Project #: CHMJ00100C
P.O. #:

Sample Number	Sample Date & Time	Asbestos					Lead					Other Metals (Specify metals below)					Air Volume (L) OR Area (ft ²) OR Scrape Area (cm ²)	Comments
		Bulk ID by PLM	Asbestos Wipe	Fiber Count (PCM)	TEM Air	TEM Chatfield (Bulk)	Air	Paint	Soil	Wipe	TCLP (Pb)	Waste Water	TCLP RCRA 8					
-1-760	12:00																1	* 24-hour turn around
T-1-760	12:05																0.089	
-2-760	12:10																1	SAMPLE CONDITION Acceptable Unacceptable
IC-2-760	12:15																0.944	
-3-760	12:20																1	
IT-3-760	12:25																1.181	
-4-760	12:30																1	
U-4-760	12:35																0.944	
S-1-760																		Soil Composite
IS-5																	1	
Released by: Jennifer E. O'Neal		Signature: <u>Jennifer O'Neal</u>										Date/Time: <u>12-13-00 2:00</u>						
Received by:		Signature:										Date/Time:						
Released by:		Signature: <u>J. Singleton</u>										Date/Time: <u>12/14/00 10:20</u>						
Received by:		Signature:										Date/Time:						

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237

804-275-4788 FAX 804-275-4907

WIPE LEAD ANALYSIS SUMMARY

CLIENT: General Engineering
2040 Savage Road
Charleston, SC 29417

DATE OF SAMPLING: 18 DEC 2000
DATE OF RECEIPT: 14 DEC 2000
DATE OF ANALYSIS: 14 DEC 2000
DATE OF REPORT: 14 DEC 2000

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 12-00-1508
PROJECT: CHMJ 00100C

EHS SAMPLE#	CLIENT SAMPLE#	WIPE AREA (ft2)	TOTAL LEAD (ug)	CONCENTRATION (ug/ft2)
01	F-1-760	1	<20.0	<20
02	WT-1-760	0.889	78.0	88
03	F-2-760	1	<20.0	<20
04	WC-2-760	0.944	<20.0	<22
05	F-3-760	1	<20.0	<20
06	WT-3-760	1.181	41.0	35
07	F-4-760	1	<20.0	<20
08	WC-4-760	0.944	32.0	34

QUALITY CONTROL DATA

BATCH#:	121400W-7
INCLUSIVE EHS SAMPLE NUMBERS:	01-08
Continuing Calibration Verification 10 (10.0ppm Pb)	102% Recovery
Continuing Calibration Verification 5 (5.00ppm Pb)	105% Recovery
Laboratory Control Standard	106% Recovery
Matrix Spike	104% Recovery
Duplicate Relative Percent Difference	1.90 RPD
Reporting Limit	20.0ug
Method Detection Limit	8.80ug

METHOD: NIOSH 7082M

ANALYST: Aubrey Simonds

Reviewed By Authorized Signatory:

Irma Faszewski
Howard Varner, Laboratory Director
Irma Faszewski, Quality Assurance Coordinator
David Xu, MS, Senior Chemist
Feng Jiang, MS, Senior Geologist

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 12-00-1508
PROJECT: CHMJ 00100C

Sample results denoted with a "less than" (<) sign contain less than 20.0ug total lead, based on a 100ml sample volume.

Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by the client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C.
California Certification #2319

LEGEND	ug = microgram	ppm = parts per million	ug/ft2 = micrograms per square foot
	ml = milliliter	Pb = lead	ft2 = square foot

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-- PAGE 02 of 02 -- END OF REPORT --

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237
804-275-4788 FAX 804-275-4907

LEAD IN SOIL ANALYSIS SUMMARY

CLIENT: General Engineering
2040 Savage Road
Charleston, SC 29417

DATE OF SAMPLING: 13 DEC 2000
DATE OF RECEIPT: 14 DEC 2000
DATE OF ANALYSIS: 15 DEC 2000
DATE OF REPORT: 15 DEC 2000

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 12-00-1509
PROJECT: CHMJ00100C

EHS SAMPLE#	CLIENT SAMPLE#	CONCENTRATION PPM (mg/kg)
01	QS-1-760	1100
02	QS-5	150
03	QS-6	130

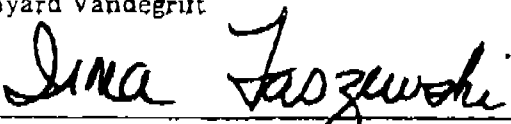
QUALITY CONTROL DATA

BATCH#:	121500S1-1
INCLUSIVE EHS SAMPLE NUMBERS:	01-03
Initial Calibration Verification (5.00ppm Pb)	102% Recovery
Continuing Calibration Verification 10 (10.0ppm Pb)	104% Recovery
Continuing Calibration Verification 5 (5.00ppm Pb)	94.8% Recovery
Laboratory Control Standard	103% Recovery
Matrix Spike	78.5% Recovery
Duplicate Relative Percent Difference	0.112 RPD
Reporting Limit	25.0ug
Method Detection Limit	2.50ug

PREPARATION METHOD: EPA 600/R-93/200
ANALYSIS METHOD: EPA SW846 7420

ANALYST: Bayard Vandegrift

Reviewed By Authorized Signatory:


Howard Varner, Laboratory Director
Irma Faszewski, Quality Assurance Coordinator
David Xu, MS, Senior Chemist
Feng Jiang, MS, Senior Geologist

Sample results denoted with a "less than" (<) sign contain less than 25.0ug total lead, based on a 50ml sample volume

Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by the client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319

LEGEND ug = microgram ppm = parts per million mg/kg = milligrams per kilogram

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.
7469 Whitepine Road Richmond, Virginia 23237 Phone (804) 275-4788 Fax (804) 275-4907

CHAIN OF CUSTODY FORM

Company Name: General Engineering

Address: PO Box 30712

City, State, Zip: Charleston, SC 29417

EHS Client Account #:

Phone#: 843-769-7378 X-4483

Fax#: 843-769-7397

Date: 12-22-00

Contact Name: James R. Tucker

Sampler Name: James R. Tucker

Project #: CHMI00100C

P.O. #:

Sample Number	Sample Date & Time	Asbestos					Lead					Other Metals (Specify metals below)					Air Volume (L) OR Wipe Area (ft ²) OR Scrape Area (cm ²)	Comments	
		Bulk ID by PLM	Asbestos Wipe	Fiber Count (PCM)	TEM Air	TEM Chatfield (Bulk)	Air	Paint	Soil	Wipe	TCLP (Pb)	Waste Water	TCLP RCRA 8						
JRT-1222-1	8:00									✓								1.23 ft ²	
JRT-1222-2	8:10									✓								1.00 ft ²	
JRT-1222-3	8:40									✓								0.802 ft ²	
JRT-1222-4	8:50									✓								1.00 ft ²	
JRT-1222-5	8:40									✓								0.781 ft ²	
JRT-1222-6	8:50									✓								1.00 ft ²	
JRT-1222-7	9:00									✓								1.09 ft ²	
JRT-1222-8	9:10									✓								1.00 ft ²	
JRT-1222-9	9:20									✓								1.00 ft ²	
JRT-1222-10	9:30									✓								1.00 ft ²	
Released by: Jane R. Tucker		Signature: J.R. Tucker										Date/Time: 1:30 p.m. 12/22/00							
Received by:		Signature:										Date/Time:							
Released by:		Signature:										Date/Time:							
Received by:		Signature:										Date/Time:							

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.
7469 Whitepine Road Richmond, Virginia 23237 Phone (804) 275-4788 Fax (804) 275-4907
CHAIN OF CUSTODY FORM

Company Name: General Engineering

Address: PO Box 30712

City, State, Zip: Charleston, SC 29417

EHS Client Account #:

Phone#: 843-769-7378 X-4483

Fax#: 843-769-7397

Date: 12-22-00

Contact Name: James R. Tucker

Sampler Name: James R. Tucker

Project #: CHN1001000

P.O. #:

Sample Number	Sample Date & Time	Asbestos					Lead					Other Metals (Specify metals below)				Air Volume (L) OR Wipe Area (ft ²) OR Scrape Area (cm ²)	Comments	
		Bulk ID by PLM	Asbestos Wipe	Fiber Count (PCM)	TEM Air	TEM Chatfield (Bulk)	Air	Paint	Soil	Wipe	TCLP (Pb)	Waste Water	TCLP RCRA 8					
IRT-1222-11									✓								1.00 ft ²	
IRT-1222-12									✓								1.00 ft ²	
IRT-1222-13									✓								1.00 ft ²	
IRT-1222-14									✓									
IRT-1222-15									✓									
Released by:	<i>[Signature]</i>					Signature:					<i>[Signature]</i>					Date/Time: 1:30 p.m. - 12/22/00		
Received by:						Signature:										Date/Time: /		
Released by:						Signature:										Date/Time:		
Received by:						Signature:										Date/Time:		

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237

804-275-4788 FAX 804-275-4907

WIPE LEAD ANALYSIS SUMMARY

CLIENT: General Engineering
2040 Savage Road
Charleston, SC 29417

DATE OF SAMPLING: 22 DEC 2000
DATE OF RECEIPT: 26 DEC 2000
DATE OF ANALYSIS: 27 DEC 2000
DATE OF REPORT: 27 DEC 2000

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 12-00-2683
PROJECT: CHMJ00100C

EHS SAMPLE#	CLIENT SAMPLE#	WIPE AREA (ft2)	TOTAL LEAD (ug)	CONCENTRATION (ug/ft2)
01	JRT-1222-1	1.23	777	630
02	JRT-1222-2	1.00	930	930
03	JRT-1222-3	0.802	300	370
04	JRT-1222-4	1.00	495	500
05	JRT-1222-5	0.781	350	450
06	JRT-1222-6	1.00	1390	1400
07	JRT-1222-7	1.09	269	250
08	JRT-1222-8	1.00	246	250
09	JRT-1222-9	1.00	66.0	66
10	JRT-1222-10	1.00	<20.0	<20
11	JRT-1222-11	1.00	31.0	31
12	JRT-1222-12	1.00	30.0	30
13	JRT-1222-13	1.00	<20.0	<20

QUALITY CONTROL DATA

BATCH#:	122700W1-4
INCLUSIVE EHS SAMPLE NUMBERS:	01-13
Continuing Calibration Verification 10 (10.0ppm Pb)	105% Recovery
Continuing Calibration Verification 5 (5.00ppm Pb)	102% Recovery
Laboratory Control Standard	103% Recovery
Matrix Spike	106% Recovery
Duplicate Relative Percent Difference	2.87 RPD
Reporting Limit	20.0ug
Method Detection Limit	8.80ug

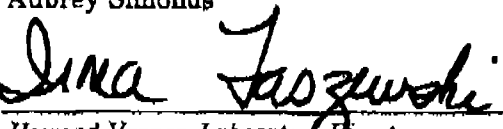
ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 12-00-2683
PROJECT: CHMJ00100C

METHOD: NIOSH 7082M

ANALYST: Aubrey Simonds

Reviewed By Authorized Signatory:


Howard Varner, Laboratory Director
Irma Faszewski, Quality Assurance Coordinator
David Xu, MS, Senior Chemist
Feng Jiang, MS, Senior Geologist

Sample results denoted with a "less than" (<) sign contain less than 20.0ug total lead, based on a 100ml sample volume.

Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by the client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319

LEGEND	ug = microgram	ppm = parts per million	ug/ft2 = micrograms per square foot
	ml = milliliter	Pb = lead	ft2 = square foot

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— PAGE 02 of 02 — END OF REPORT —

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237

804-275-4788 FAX 804-275-4907

LEAD IN SOIL ANALYSIS SUMMARY

CLIENT: General Engineering
2040 Savage Road
Charleston, SC 29417

DATE OF RECEIPT: 26 DEC 2000
DATE OF ANALYSIS: 27 DEC 2000
DATE OF REPORT: 27 DEC 2000

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 12-00-2685
PROJECT: CHMJ00100C

EHS SAMPLE#	CLIENT SAMPLE#	CONCENTRATION PPM (mg/kg)
01	JRT-1222-14	75
02	JRT-1222-15	320

QUALITY CONTROL DATA

BATCH#:	122700S1-1
INCLUSIVE EHS SAMPLE NUMBERS:	01-02
Initial Calibration Verification (5.00ppm Pb)	102% Recovery
Continuing Calibration Verification 5 (5.00ppm Pb)	101% Recovery
Laboratory Control Standard	100% Recovery
Matrix Spike	108% Recovery
Duplicate Relative Percent Difference	11.2 RPD
Reporting Limit	25.0ug
Method Detection Limit	2.50ug

PREPARATION METHOD: EPA 600/R-93/200
ANALYSIS METHOD: EPA SW846 7420

ANALYST: Aubrey Simonds

Reviewed By Authorized Signatory:

Irma Faszewski
Howard Varner, Laboratory Director
Irma Faszewski, Quality Assurance Coordinator
David Xu, MS, Senior Chemist
Feng Jiang, MS, Senior Geologist

Sample results denoted with a "less than" (<) sign contain less than 25.0ug total lead, based on a 50ml sample volume.

Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by the client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319

LEGEND ug = microgram ppm = parts per million mg/kg = milligrams per kilogram
ml = milliliter Pb = lead

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ENVIRONMENTAL HAZARDS SERVICES, L.L.C.
7469 Whitepine Road Richmond, Virginia 23237 Phone (804) 275-4788 Fax (804) 275-4907

CHAIN OF CUSTODY FORM

Company Name: **General Engineering**

Address: PO Box 30712

City, State, Zip: Charleston, SC 29417

EHS Client Account #:

Phone#: 843-769-7378 X-4483

Fax#: 843-769-7397

Date: 12-29-00

Contact Name: James R. Tucker

Sampler Name: James R. Tucker

Project #: CH/100100C

P.O. #:

Sample Number	Sample Date & Time	Asbestos					Lead					Other Metals (Specify metals below)					Air Volume (L) OR Area (ft²) OR Scrape Area (cm²)	Comments
		Bulk ID by PLM	Asbestos Wipe	Fiber Count (PCM)	TEM Air	TEM Chatfield (Bulk)	Air	Paint	Soil	Wipe	TCLP (Pb)	Waste Water	TCLP RCRA 8					
JRT-1229-01	8:00																	24 hour Turnaround Please
JRT-1229-02	8:05																	
JRT-1229-03	8:10																	
JRT-1229-04	8:15																	
JRT-1229-05	8:20																	
JRT-1229-06	8:25																	
JRT-1229-07	8:30																	
JRT-1229-08	8:30																	
Released by: <u>James R. Tucker</u>		Signature: <u>James R. Tucker</u>					Date/Time: <u>12-29-00 - 12:00</u>											
Received by:		Signature:					Date/Time:											
Released by:		Signature:					Date/Time:											
Received by:		Signature:					Date/Time:											

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.
7469 Whitepine Road Richmond, Virginia 23237 Phone (804) 275-4788 Fax (804) 275-4907
CHAIN OF CUSTODY FORM

Company Name: General Engineering

Address: PO Box 30712

City, State, Zip: Charleston, SC 29417

EHS Client Account #:

Phone#: 843-769-7378 X-4483

Fax#: 843-769-7397

Date: 12-29-00

Contact Name: James R. Tucker

Sampler Name: James R. Tucker

Project #: CHMT 001000

P.O. #:

Sample Number	Sample Date & Time	Asbestos					Lead					Other Metals (Specify metals below)					Air Volume (L) OR Area (ft²) OR Scrape Area (cm²)	Comments
		Bulk ID by PLM	Asbestos Wipe	Fiber Count (PCM)	TEM Air	TEM Chatfield (Bulk)	Air	Paint	Soil	Wipe	TCLP (Pb)	Waste Water	TCLP RCRA 8					
IRT-1229-09	12-29-00 8:40																	24 Turnaround Please
IRT-1229-10	8:45																	
IRT-1229-11	8:50																	
IRT-1229-12	8:55																	
IRT-1229-13	9:00																	
IRT-1229-14	9:05																	
IRT-1229-15	9:10																	
IRT-1229-16	9:15																	
IRT-1229-17	9:25																	
IRT-1229-18	9:35																	
Released by: J. R. Tucker		Signature: J. R. Tucker										Date/Time: 12-29-00 - 12:00						
Received by:		Signature:										Date/Time:						
Released by:		Signature:										Date/Time:						
Received by:		Signature:										Date/Time:						

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.
7469 Whitepine Road Richmond, Virginia 23237 Phone (804) 275-4788 Fax (804) 275-4907

CHAIN OF CUSTODY FORM

Company Name: General Engineering

Address: PO Box 30712

City, State, Zip: Charleston, SC 29417

EHS Client Account #:

Phone#: 843-769-7378 X-4483

Fax#: 843-769-7397

Date: 12-29-00

Contact Name: James R. Tucker

Sampler Name: James R. Tucker

Project #: CHMI001020

P.O. #:

Sample Number	Sample Date & Time	Asbestos					Lead					Other Metals (Specify metals below)					Air Volume (L) OR Area (ft²) OR Scrape Area (cm²)	Comments
		Bulk ID by PLM	Asbestos Wipe	Fiber Count (PCM)	TEM Air	TEM Chatfield (Bulk)	Air	Paint	Soil	Wipe	TCLP (Pb)	Waste Water	TCLP RCRA 8					
IRT-1227-19	12-29-00 9:45																	24 hr. Turnover Please
IRT-1227-20	9:50																	
IRT-1229-21	9:55																	
IRT-1229-22	10:10																	
Released by: J.R. Tucker	Signature: J.R. Tucker	Date/Time: 12-29-00 - 12:00																
Received by:	Signature:	Date/Time:																
Released by:	Signature:	Date/Time:																
Received by:	Signature:	Date/Time:																

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.
7469 WHITE PINE ROAD - RICHMOND, VA 23237
804-275-4788 FAX 804-275-4907

WIPE LEAD ANALYSIS SUMMARY

CLIENT: General Engineering
2040 Savage Road
Charleston, SC 29417

DATE OF SAMPLING: 29 DEC 2000
DATE OF RECEIPT: 02 JAN 2001
DATE OF ANALYSIS: 02 JAN 2001
DATE OF REPORT: 03 JAN 2001

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 01-01-0076
PROJECT: CHAJ00100C

Quarters 763 + 762

EHS SAMPLE#	CLIENT SAMPLE#	WIPE AREA (ft ²)	TOTAL LEAD (ug)	CONCENTRATION (ug/ft ²)
01	JRT-1229-01	★ 0.593	142	★ 239
02	JRT-1229-02	★ 1.0	<20.0	★ <20.0
03	JRT-1229-03	★ 1.0	34.0	★ 34
04	JRT-1229-04	★ 0.968	227	★ 234
05	JRT-1229-05	★ 0.804	118	★ 146
06	JRT-1229-06	★ 1	<20.0	★ <20.0
07	JRT-1229-07	★ 0.631	<20.0	★ <20.0
08	JRT-1229-08	★ 1	143	★ 143
09	JRT-1229-09	★ 0.937	120	★ 128
10	JRT-1229-10	★ 1.0	<20.0	★ <20.0
11	JRT-1229-11	★ 1.0	36.0	★ 36.0
12	JRT-1229-12	★ 0.875	552	★ 630
13	JRT-1229-13	★ 1.0	66.0	★ 66
14	JRT-1229-14	★ 0.875	203	★ 232
15	JRT-1229-15	★ 1.0	<20.0	★ <20.0
16	JRT-1229-16	★ 0.859	130	★ 151
17	JRT-1229-19	★ 1.0	37.0	★ 37
18	JRT-1229-20	★ 1.0	37.0	★ 37
19	JRT-1229-21	★ 1.0	<20.0	★ <20.0
20	JRT-1229-22	★ 1.0	---	---

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237

804-275-4788 FAX 804-275-4907

LEAD IN SOIL ANALYSIS SUMMARY

CLIENT: General Engineering
2040 Savage Road
Charleston, SC 29417

DATE OF SAMPLING: 29 DEC 2000

DATE OF RECEIPT: 02 JAN 2001

DATE OF ANALYSIS: 02 JAN 2001

DATE OF REPORT: 02 JAN 2001

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 01-01-0075
PROJECT: CHMI 001000

EHS SAMPLE#	CLIENT SAMPLE#	CONCENTRATION PPM (mg/kg)
01	JRT-1229-17	1700
02	JRT-1229-18	190

QUALITY CONTROL DATA

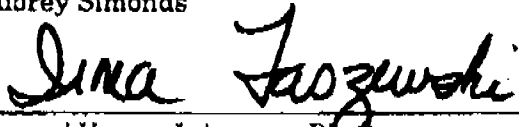
BATCH#:	010201S-4
INCLUSIVE EHS SAMPLE NUMBERS:	01-02
Continuing Calibration Verification 10 (10.0ppm Pb)	99.9% Recovery
Continuing Calibration Verification 5 (5.00ppm Pb)	103% Recovery
Laboratory Control Standard	116% Recovery
Matrix Spike	98.0% Recovery
Duplicate Relative Percent Difference	0.00 RPD
Reporting Limit	25.0ug
Method Detection Limit	2.50ug

PREPARATION METHOD: EPA 600/R-93/200

ANALYSIS METHOD: EPA SW846 7420

ANALYST: Aubrey Simonds

Reviewed By Authorized Signatory:


Howard Varner, Laboratory Director
Irma Paszewski, Quality Assurance Coordinator
David Xu, MS, Senior Chemist
Feng Jiang, MS, Senior Geologist

Sample results denoted with a "less than" (<) sign contain less than 25.0ug total lead, based on a 50ml sample volume.

Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319

LEGEND	ug = microgram	ppm = parts per million	mg/kg = milligrams per kilogram
	ml = milliliter	Pb = lead	

soilpb3.d01/24OCT2000/ dpb

EHS 01-01-1551

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 Whitepine Road Richmond, Virginia 23237 Phone (804) 275-4788 Fax (804) 275-4907

CHAIN OF CUSTODY FORM

16pb(wipe)

Company Name: General Engineering

Date: 1-10-01

Address: PO Box 30712

Contact Name: James R. Tucker

City, State, Zip: Charleston, SC 29417

Sampler Name: James R. Tucker

EHS Client Account #:

Project #: CHM100100C

Phone#: 843-769-7378 X-4483

Fax#: 843-769-7397

P.O. #:

Sample Number	Sample Date & Time	Asbestos					Lead					Other Metals (Specify metals below)					Air Volume (L) OR Area (ft ²) OR Scrape Area (cm ²)	Comments
		Bulk ID by FLM	Asbestos Wipe	Fiber Count (PCM)	TEM Air	TEM Charfield (Bulk)	Air	Paint	Soil	Wipe	TCLP (Pb)	Waste Water	TCLP RCRA 8					
JRT-0110-1	1-10-01																1.0	
2	1:15																1.32	SAMPLE CONDITION
3	1:20																1.0	Acceptable
4	1:25																0.74	Unacceptable
5	1:40																1.0	
6	1:40																1.05	
7	1:45																1.08	
8	1:50																1.0	
9	1:55																1.0	

Released by: James R. Tucker	Signature: J.R. Tucker	Date/Time: 1-10-01 5:30 pm
Received by:	Signature:	Date/Time:
Released by:	Signature:	Date/Time:
Received by:	Signature:	Date/Time: 1/11/01 1 pm

ENVIRONMENTAL HAZARD SERVICES 8042754907: 01/17/01
 FAX: 8:16; JEFFAX: 01/17/01
 #14; Page 4/4

Date: 1-10-01

Contact Name: _____ James R. Tucker

Sampler Name: James R. Tucker

Project #: CH4500100C

Fax#: - 843-769-7397

P.O. #: _____

Sample Number	Sample Date & Time	Asbestos					Lead					Other Metals (Specify metals below)					Air Volume (L) OR Wipe Area (ft²) OR Scrape Area (cm²)	Comments	
		Bulk ID by PLM	Asbestos Wipe	Fiber Count (PCM)	TEM Air	TEM Chatfield (Bulk)	Air	Paint	Soil	Wipe	TCLP (Pb)	Waste Water	TCLP RCRA 8						
IRT-0110-10	2:10																		
-11	2:20								✓										
-12	3:00								✓										
-13	3:10								✓										
-14	3:20								✓										
-15	3:25								✓										
-16	4:00								✓										

Released by: James R. Tucker

Signature: *J. R. Tucker*

Date/Time: 1-10-01 - 5:34 p.m.

Received by:

Signature:

Date/Time:

Released by:

Signature: *[Signature]*

Date/Time: 1/10/01 1:00 p.m.

Received by:

Signature:

Date/Time:

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237

804-275-4788 FAX 804-275-4907

WIPE LEAD ANALYSIS SUMMARY

CLIENT: General Engineering
2040 Savage Road
Charleston, SC 29417

DATE OF SAMPLING: 10 JAN 2001
DATE OF RECEIPT: 16 JAN 2001
DATE OF ANALYSIS: 16 JAN 2001
DATE OF REPORT: 16 JAN 2001

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 01-01-1551
PROJECT: CHMJ00100C

EHS SAMPLE#	CLIENT SAMPLE#	WIPE AREA (ft ²)	TOTAL LEAD (ug)	CONCENTRATION (ug/ft ²)
01	JRT-0110-1	1.0	198	200 ~
02	JRT-0110-2	1.32	<20.0	<16
03	JRT-0110-3	1.0	<20.0	<20
04	JRT-0110-4	0.74	81.0	110
05	JRT-0110-5	1.0	<20.0	<20
06	JRT-0110-6	1.05	<20.0	<20
07	JRT-0110-7	1.08	48.0	44
08	JRT-0110-8	1.0	67.0	67
09	JRT-0110-9	1.0	53.0	53 ~
10	JRT-0110-10	1.0	61.0	61 ~
11	JRT-0110-11	1.0	<20.0	<20
12	JRT-0110-12	1.0	<20.0	<20
13	JRT-0110-13	1.0	<20.0	<20
14	JRT-0110-14	1.0	42.0	42
15	JRT-0110-15	1.0	28.0	28
16	JRT-0110-16	1.0	39.0	39

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 01-01-1551
PROJECT: CHMJ00100C


QUALITY CONTROL DATA

BATCH#:	011601W1-1
INCLUSIVE EHS SAMPLE NUMBERS:	01-16
Initial Calibration Verification (5.00ppm Pb)	104% Recovery
Continuing Calibration Verification 10 (10.0ppm Pb)	103% Recovery
Continuing Calibration Verification 5 (5.00ppm Pb)	105% Recovery
Laboratory Control Standard	104% Recovery
Matrix Spike	105% Recovery
Duplicate Relative Percent Difference	0.962 RPD
Reporting Limit	20.0ug
Method Detection Limit	8.80ug

METHOD: NIOSH 7082M

ANALYST: Aubrey Simonds

Reviewed By Authorized Signatory:


Howard Varner, Laboratory Director
Irma Faszewski, Quality Assurance Coordinator
David Xu, MS, Senior Chemist
Feng Jiang, MS, Senior Geologist

Sample results denoted with a "less than" (<) sign contain less than 20.0ug total lead, based on a 100ml sample volume.

Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by the client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C.
California Certification #2319

LEGEND	ug = microgram	ppm = parts per million	ug/ft2 = micrograms per square foot
	ml = milliliter	Pb = lead	ft2 = square foot

wipepb1.dot/24OCT2000/ dpb

-- PAGE 02 of 02 -- END OF REPORT --

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.
7469 Whitepine Road Richmond, Virginia 23237 Phone (804) 275-4788 Fax (804) 275-4907
CHAIN OF CUSTODY FORM

Company Name: General Engineering

Address: PO Box 30712

City, State, Zip: Charleston, SC 29417

EHS Client Account #:

Phone#: 843-769-7378 X-4483

Fax#: 843-769-7397

Date: 1-26-01

Contact Name: James R. Tucker

Sampler Name: James R. Tucker

Project #: CHAI00100C

P.O. #:

Sample Number	Sample Date & Time	Asbestos					Lead					Other Metals (Specify metals below)					Air Volume (L) OR Area (ft ²) OR Scrape Area (cm ²)	Comments
		Bulk ID by PLM	Asbestos Wipe	Fiber Count (PCM)	TEM Air	TEM Chatfield (Bulk)	Air	Paint	Soil	Wipe	TCLP (Pb)	Waste Water	TCLP RCRA 8					
IRT-0126-1	1/26 8:10																1.0	24 hr Turnaround Please -
IRT-0126-2	1/26 8:10																1.0	
IRT-0126-3	1/26 8:20																1.0	
IRT-0126-4	1/26 8:40																1.0	
IRT-0126-5	1/26 9:30																1.0	
IRT-0126-6	1/26 9:45																1.0	

Released by: G. R. Tucker	Signature: <i>G. R. Tucker</i>	Date/Time: 1/26/00 10:30 am -
Received by:	Signature:	Date/Time:
Released by:	Signature:	Date/Time:
Received by:	Signature:	Date/Time:

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237

804-275-4788 FAX 804-275-4907

WIPE LEAD ANALYSIS SUMMARY

CLIENT: General Engineering
2040 Savage Road
Charleston, SC 29417

DATE OF SAMPLING: 26 JAN 2001
DATE OF RECEIPT: 29 JAN 2001
DATE OF ANALYSIS: 29 JAN 2001
DATE OF REPORT: 29 JAN 2001

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 01-01-3144
PROJECT: CHMI00100C

EHS SAMPLE#	CLIENT SAMPLE#	WIPE AREA (ft2)	TOTAL LEAD (ug)	CONCENTRATION (ug/ft2)
01	JRT-0126-1	1.0	<20.0	<20
02	JRT-0126-2	1.0	<20.0	<20
03	JRT-0126-3	1.0	<20.0	<20
04	JRT-0126-4	1.0	<20.0	<20
05	JRT-0126-5	1.0	<20.0	<20
06	JRT-0126-6	1.0	<20.0	<20

QUALITY CONTROL DATA

BATCH#:	012901W-8
INCLUSIVE EHS SAMPLE NUMBERS:	01-06
Continuing Calibration Verification 10 (10.0ppm Pb)	100% Recovery
Continuing Calibration Verification 5 (5.00ppm Pb)	105% Recovery
Laboratory Control Standard	102% Recovery
Matrix Spike	99.4% Recovery
Duplicate Relative Percent Difference	2.58 RPD
Reporting Limit	20.0ug
Method Detection Limit	8.80ug

METHOD: NIOSH 7082M

ANALYST: Aubrey Simonds

Reviewed By Authorized Signatory: 

Howard Varner, Laboratory Director

Irma Faszewski, Quality Assurance Coordinator

David Xu, MS, Senior Chemist

Feng Jiang, MS, Senior Geologist

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 42-4586 A
EHS PROJECT #: 01-01-3144
PROJECT: CHMI00100C

Sample results denoted with a "less than" (<) sign contain less than 20.0ug total lead, based on a 100ml sample volume.

Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by the client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319

LEGEND	ug = microgram	ppm = parts per million	ug/ft2 = micrograms per square foot
	ml = milliliter	Pb = lead	ft2 = square foot

wipepb1.dot/24OCT2000/ dpb

-- PAGE 02 of 02 -- END OF REPORT --

Attachment Four
CERTIFICATIONS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAR 13 2000

4APT-TS

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. James R. Tucker
3045 Linksland Road
Mt. Pleasant, SC 29466-6911

SUBJ: Individual Certification for Lead-Based Paint Activities in Target Housing and Child-Occupied Facilities

Dear Mr. Tucker:

The United States Environmental Protection Agency (U.S. EPA), Region 4 has completed its review of your individual application dated January 5, 2000, for certification to engage in lead-based paint activities pursuant to 40 CFR Part 745, Subpart L (61 FR 45778, August 29, 1996). I am pleased to inform you that as of the date of this letter, you are U.S. EPA certified for the lead-based paint activities discipline of risk assessor. You will be mailed a U.S. EPA certificate for this discipline under separate cover at a future date.

This individual certification, which expires three years after the date of issuance, is valid only for U.S. EPA Region 4 and only in the State of South Carolina, excluding Indian tribes. If this U.S. EPA-administered state obtains program authorization at any time during the term of your current certification, the scope of your individual certification will be correspondingly diminished to exclude this affected area. Please be aware that your U.S. EPA certification does not relieve you of any obligations that you may otherwise have to any authorized or unauthorized state or Indian tribe to obtain licensure or certification from that state or Indian tribe under its statutory or regulatory requirements relating to lead-based paint activities. Your U.S. EPA individual certification is subject to the following restrictions.

- 1) Certification pertains only to the specific discipline, jurisdiction, and individual listed above that performs or offers to perform the associated lead-based paint activities within the scope of the discipline described in 40 CFR §745.223 and 40 CFR §745.227 pursuant to Section 402 of the Toxic Substances Control Act (TSCA) (15 U.S.C. 2682).
- 2) U.S. EPA certification does not mean that a state or Indian tribe with its own certification program must accept or recognize a U.S. EPA certification. Individual states and Indian tribes, whether authorized or not, have the right to accept or reject any certification under their own authority.

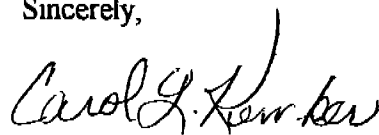
- 3) U.S. EPA certification is specific and limited to the location and discipline described above. If you wish to obtain certification in other U.S. EPA administered states or Indian tribes or in other lead-based paint activity disciplines, you will need to apply separately for this certification.
- 4) In advertising the U.S. EPA's certification, individuals must indicate clearly that the individual is only certified under Section 402 of TSCA for the respective discipline. Failure to accurately state U.S. EPA certification conditions could result in the U.S. EPA suspending or withdrawing certification.
- 5) The U.S. EPA may revoke or suspend its certification of any individual if subsequent alterations or deviations result with the individual no longer meeting the standards found at 40 CFR Part 745, Subpart L.
- 6) The U.S. EPA may conduct audits and/or inspections to ensure continued compliance with its regulatory standards.

Please submit any future notifications or correspondence with this office to the address given below.

***Regional Lead Coordinator
U.S. EPA, Region 4
Pesticides and Toxic Substances Branch
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960***

If you have questions, or need assistance, please contact the Regional Lead Coordinator, Ms. Rose Anne Rudd of the U.S. EPA Region 4 staff at 404-562-8998. Thank you for your interest in providing certified lead-based paint activities services in the U.S. EPA Region 4.

Sincerely,



Carol L. Kemker
Chief
Pesticides and Toxic
Substances Branch

cc: Traci Brown, EPA HQ
Cathy Strasnick, Optimus Corporation



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAR 16 2000

4APT-TS

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. James R. Tucker
ASAP Environmental
3045 Linksland Road
Mt. Pleasant, SC 29466

SUBJ: Certification of Lead-Based Paint Activities Firm

Dear Mr. Tucker:

The United States Environmental Protection Agency (U.S. EPA), Region 4 has completed its review of your firm application dated January 5, 2000, for certification to become a lead-based paint activities firm pursuant to 40 CFR Part 745, Subpart L (61 FR 45778, August 29, 1996). I am pleased to inform you that as of the date of this letter, your lead-based paint activities firm is U.S. EPA certified. You will be mailed a U.S. EPA certificate under separate cover at a future date.

This firm certification, which expires three years after the date of issuance, is valid only for U.S. EPA Region 4, and only in the State of South Carolina, excluding Indian tribes. If the State of South Carolina obtains program authorization at any time during the term of your current certification, the scope of your firm certification will be correspondingly diminished to exclude this affected area. Please be aware that your U.S. EPA certification does not relieve you of any obligations that you may otherwise have to any authorized or unauthorized state or Indian tribe to obtain licensure or certification from that state or Indian tribe under its statutory or regulatory requirements relating to lead-based paint activities. Your U.S. EPA firm certification is subject to the following restrictions.

- 1) Certification pertains only to firms which perform or offer to perform any of the lead-based paint activities described in 40 CFR §745.227 pursuant to Section 402 of the Toxic Substances Control Act (TSCA) (15 U.S.C. 2682).
- 2) U.S. EPA certification does not mean that a state or Indian tribe with its own certification program must accept or recognize a U.S. EPA certification. Individual states and Indian tribes, whether authorized or not, have the right to accept or reject any certification under their own authority.

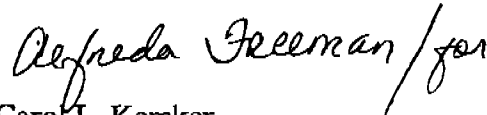
- 3) U.S. EPA certification is specific and limited to the location described above. If you wish to obtain certification in other U.S. EPA administered states or Indian tribes, you will need to apply separately for this certification.
- 4) In advertising the U.S. EPA's certification, firms must indicate clearly that the firm is only certified under Section 402 of TSCA. Failure to accurately state U.S. EPA certification conditions in advertisements could result in the U.S. EPA suspending or withdrawing certification.
- 5) The U.S. EPA may revoke or suspend its certification of any firm if subsequent alterations or deviations result in the firm no longer meeting the standards found at 40 CFR Part 745, Subpart L.
- 6) The U.S. EPA may conduct audits and/or inspections to ensure continued compliance with its regulatory standards.

Please submit any future notifications or correspondence with this office to the address given below.

***Regional Lead Coordinator
U.S. EPA, Region 4
Pesticides and Toxic Substances Branch
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960***

If you have questions or need assistance, please contact the Regional Lead Coordinator, Ms. Rose Anne Rudd of the EPA Region 4 staff at 404-562-8998. Thank you for your interest in providing certified lead-based paint activities services in U.S. EPA Region 4.

Sincerely,



Carol L. Kemker
Chief
Pesticides and Toxic
Substances Branch

cc: Traci Brown, EPA HQ
Cathy Strasnick, Optimus Corporation



James Tucker
3045 Linkland Road
Mt Pleasant, SC 29466

GEORGIA LEAD CERTIFICATION

SSN			
228-52-5290			
DOB	SEX	HT	WT
1/4/1954	M	5'11"	250
CLASS	EXP		
LEAD DESIGNER	140017		
LEAD INSPECTOR	110250		
RISK ASSESSOR	120244		



NORTH CAROLINA LEAD CERTIFICATION

James R Tucker
3045 Linkland Rd
Mt Pleasant, SC 29466

DOB: 1/4/1954			
CLASS: E			
RISK ASSESSOR	120535	INS RIS	01-20-1999 01-22-1999
		01-31-2001	

This certification identification card has been issued pursuant to O.C.G.A. Section 31-41-1 et seq, Georgia Lead Poisoning Act and Chapter 391-3-24, Georgia Rules for Lead-Based Paint Abatement and Certification, and is subject to revocation if the holder fails to comply with the provisions of Chapter 13 of Title 50, the "Georgia Administrative Procedures Act".

This card is non-transferable and will become invalid if loaned or given to another person for identification. This card will also be invalid if altered or defaced.

This card is the property of the Georgia Environmental Protection Division. It must be returned to the Division if the holder's certification is revoked or if this card is invalidated. Any person performing regulated lead-based paint activities without current certification shall be subject to legal sanction.

For information or corrections, direct all inquiries to the following:
Georgia Department of Natural Resources
Environmental Protection Division
Lead-Based Paint and Asbestos Program
4244 International Parkway, Suite 104
Atlanta, Georgia 30354
(404) 363-7026

This certification identification card has been issued pursuant to Chapter 130A, Article 10A of the NC General Statutes and is subject to revocation if the holder fails to comply with the requirements of 15A NCAC 10C Section .0600 or if the certification was issued based upon incorrect or inadequate information.

This card is non-transferable and will become invalid if loaned or given to another person for identification. This card will also be invalid if altered or defaced.

This card is the property of the North Carolina Department of Health and Human Services. It must be returned to the Department if the holder's certification is revoked or if this card is invalidated. Any person performing regulated lead-based paint abatement activities without current certification shall be subject to legal sanction.

YOU MUST HAVE THIS IDENTIFICATION CARD WITH YOU ON THE JOB.
For information or corrections, direct all inquiries to the following:

Health Hazards Control Unit
NC Department of Health and Human Services
Division of Public Health
1912 Mail Service Center, Raleigh, NC 27699-1912
(919) 733-0820



Medical University of South Carolina
College of Health Professions
Program in Environmental Health Sciences

19 Hagood Avenue, Charleston, South Carolina 29425 (843) 792-5315

Certifies that

JAMES R. TUCKER

Attended and Satisfactorily Completed

Inspection for Lead-Based Paint

conducted January 24, 2000 through January 26, 2000
and satisfactorily passed an exam on January 26, 2000.

Pb27120-99121

Certificate Number

24

Contact Hours

226-62-5390

ID Number



T.A. Rowland, III
Program Director

January 26, 2000

Exam Date

January 25, 2003

Certificate Expires



David M. Hunt, CIH
Instructor



Medical University of South Carolina
College of Health Professions
Program in Environmental Health Sciences

19 Hagood Avenue, Charleston, South Carolina 29425 (843) 792-5315

Certifies that

JAMES R. TUCKER

Attended and Satisfactorily Completed

Risk Assessment of Lead-Based Paint

conducted January 27, 2000 through January 28, 2000
and satisfactorily passed an exam on January 28, 2000.

PbRA27120-00046

Certificate Number

16

Contact Hours

226-62-5390

ID Number

T. A. Rowland, III

T.A. Rowland, III
Program Director

January 28, 2000

Exam Date

January 27, 2003

Certificate Expires

David M. Hunt

David M. Hunt, CIH
Instructor



Georgia Department of Natural Resources

Environmental Protection Division

Land Protection Branch

4244 International Parkway, Suite 104, Atlanta, Georgia 30354

Lonice C. Barrett, Commissioner

Harold F. Reheis, Director

(404) 363-7026

May 8, 2000

**James Tucker
3045 Linksland Road
Mt Pleasant, SC 29466**

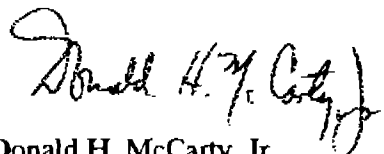
Dear Mr. Tucker:

Your application for certification as Lead-Based Paint LEAD DESIGNER has been approved by the Environmental Protection Division in accordance with the Georgia Rules for Lead-Based Paint Abatement and Certification, Chapter 391-3-24. Your Georgia certification number is 140017. It is reflected on your enclosed Georgia Certification card.

Your Georgia certification is valid through February 23, 2001. In order to maintain certification as a Lead-Based Paint LEAD DESIGNER, you must pay the required renewal fee and recertify your license on or before the expiration date stated on your card. If you should continue to perform lead-based paint activities after the expiration date, you will be in violation of the Georgia Lead-Based Paint Abatement and Certification Rule and may be cited for noncompliance. It is your responsibility to ensure you have met all the requirements for renewal of your lead certification.

If you have any questions, please contact Tamara Carter at (404) 362-2704.

Sincerely,



Donald H. McCarty, Jr.

Program Manager I

Lead-Based Paint and Asbestos Program

Enclosure

Medical University of South Carolina
College of Health Professions
Program in Environmental Health Sciences

19 Hagood Avenue, Charleston, South Carolina 29425 (843) 792-5315

Certifies that

CRAIG C. LANGFORD

2040 SAVAGE RD.

CHARLESTON,

SC

29402

Attended and Satisfactorily Completed

Inspection for Lead-Based Paint

conducted October 23, 2000 through October 25, 2000

and passed an exam on October 25, 2000.

127120-10002

Certificate Number

24

Contact Hours

248-43-3432

ID Number

T.A. Rowland, III

T.A. Rowland, III

Program Director

David M. Hunt

David M. Hunt, CIH

Instructor

October 25, 2000

Exam Date

October 25, 2003

EPA Interim Certification Expiration

Medical University of South Carolina
College of Health Professions
Program in Environmental Health Sciences

19 Hagood Avenue, Charleston, South Carolina 29425 (843) 792-5315

Certifies that

CRAIG C. LANGFORD

2040 SAVAGE RD.

CHARLESTON,

SC

29402

Attended and Satisfactorily Completed
Risk Assessment of Lead-Based Paint
conducted October 26, 2000 through October 27, 2000
and passed an exam on October 27, 2000.

PbRA27120-10005

Certificate Number

16

Contact Hours

248-43-3432

ID Number

T. A. Rowland, III

T.A. Rowland, III

Program Director

October 27, 2000

Exam Date

October 27, 2003

EPA Interim Certification Expiration

David M. Hunt

David M. Hunt, CIH

Instructor